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10/699,162

10/31/2003

Mika Forssell

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12/19/2007

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EXAMINER

MEW, KEVIN D

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

12/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,162

Applicant(s)

FORSELL ET AL.

Examiner

Kevin Mew

Art Unit

2616

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Final Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 9/24/2007 have been considered. Claims 22-40 have been newly added by applicant. Claims 20-40 are currently pending.

2. Acknowledgement is made of the amended abstract with respect to the objection specification set forth in the previous Office action. The correction is acceptable and the objection to the specification is now withdrawn.

3. Acknowledgement is made of the applicant's response to the guidelines suggested by examiner with respect to the format of the specification. Applicant has chosen not to include the corresponding headings in the specification as suggested in the specification format guidelines.

Specification

4. The disclosure is objected to because of the following informalities:

On page 1, lines 4 and 6 of the specification were written in a foreign language. Please delete lines 4 and 6 in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 20-26, 29, 31-36, 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Noneman et al. (USP 5,708,656).

The applied reference has a common assignee, Nokia Mobile Phones Limited, with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 20, Noneman discloses a method for transferring a data flow by creating a connection on a packet radio service of a telecommunication system (a connection on a wireless packet radio communications system, Fig. 2) between two radio resource entities (between mobile station 10 and a base station 30, col. 3, lines 26-37), wherein the data flow comprises at least one active data transfer period (active period when there is packet data transmission at peak rate, col. 2, lines 28-30), the method comprising:

transferring information during the at least one active data transfer period (packet data transmission at peak rate, col. 2, lines 28-30); and

after the active data transfer period (when no packet data is available, col. 2, lines 21-23), maintaining the connection on the packet radio service during a passive period (maintaining the packet data service connection at idle rate during inactivity, col. 2, lines 21-26; note that connection at idle rate is the passive period), during which packets are not transferred from one of the radio entities to the other radio resource entity over the connection (during the idle frame period, no data is transmitted between two radio resource entities over the connection, Fig. 3A), until an event occurs selected from the group consisting of:

reaching the end of a predetermined time after which the connection is released (until reaching the second inactivity timer after which the packet data service is released, col. 2, lines 36-38); and, more data to be transferred appears (until packet data becomes available for transmission between the time the first inactivity timer expires and the second inactivity timer expires, col. 2, lines 39-43) after which the connection is continued (the inactivity continues after the first inactivity timer expires, and after which the connection continues and the data packets are transmitted at intermediate rate, col. 2, lines 34-38), said continuation of the connection (the packet data service connection is maintained after the first inactivity time expires) enabled by the allocation of transmit permission to said data flow by the system (enabled by packet data being allowed to transmit at intermediate rate, col. 2, lines 38-43) within said passive period (during the period when the packet data service connection is maintained at idle rate. 2, lines 21-26).

Regarding claim 21, Noneman discloses a method for transferring a data flow by creating a connection on a packet radio service of a telecommunication system (a connection on a wireless packet radio communications system, Fig. 2) between two radio resource entities (between mobile station 10 and a base station 30, col. 3, lines 26-37), wherein the data flow comprises at least one active data transfer period (active period when there is packet data transmission at peak rate, col. 2, lines 28-30), the method comprising:

allocating data transfer resources for a first direction (uplink/downlink) of packet data flow transfer (allocating a connection for transmitting packet data between a mobile station and a base station);

allocating resources for packet data flow transfer for the opposite data transfer direction (allocating a connection for transmitting packet data between a mobile station and a base station, col. 3, lines 26-37); and

after the active data transfer period (when no packet data is available, col. 2, lines 21-23), maintaining the connection on the packet-radio service during a passive period (maintaining the packet data service connection at idle rate during inactivity, col. 2, lines 21-26; note that connection at idle rate is the passive period), during which packets are not transferred from one of the radio entities to the other radio resource entity over the connection (during the idle frame period, no data packets are transmitted between two radio resource entities over the connection, Fig. 3A), either until the end of a predetermined time after which the connection is realized (until reaching the second inactivity timer after which the packet data service is released, col. 2, lines 34-38) or until more data to be transferred appears (until packet data becomes available for transmission between the time the first inactivity timer expires and the second inactivity timer

expires, col. 2, lines 39-43) after which the connection is continued (the inactivity continues after the first inactivity timer expires, and after which the connection continues and the data packets are transmitted at intermediate rate, col. 2, lines 34-38), whichever occurs first (whichever comes first, col. 2, lines 34-43).

Regarding claim 22, Noneman discloses the method according to claim 21, further comprising:

temporarily allocating, during a passive period, the resources for packet data flow transfer in at least one direction to another connection between one of the two radio resource entities and another radio resource entity that is not one of the two radio resource entities (inactive user's capacity is quickly reallocated to an active user during the idle time period, col. 5, lines 4-15).

Regarding claim 23, Noneman discloses the method according to claim 20, further comprising:

temporarily allocating, during a passive period, the resources for packet data flow transfer to another connection between one of the two radio resource entities and another radio resource entity that is not one of the two radio resource entities (inactive user's capacity is quickly reallocated to an active user during the idle time period, col. 5, lines 4-15).

Regarding claim 24, Noneman discloses a memory containing machine-readable instructions that, when executed by a processor, cause the processor to implement a method of

packet radio communications with a wireless communication entity to support a data flow, wherein the data flow contains at least one active data transfer period, the method comprising:

transferring data packets during an active data transfer period (data packets are transmitted at peak rate during the packet transmission period 300, col. 5, lines 15-46, Fig. 3C);

entering a passive period during which data packets are not transferred (entering an idle time period 310 during which no data packets are transmitted, col. 5, lines 15-46, Fig. 3C);

if more data becomes available prior to the expiration of a predetermined time period (if more data becomes available for transmission prior to the terminate time expires), initiating a further active data transfer period (data packets are transmitted at intermediate rate during time period 330, Fig. 3C); and

if more data does not become available prior to the expiration of the predetermined time period, breaking said connection (if packet transmission does not resume before the terminate timer expires, packet service connection is disconnected, col. 5, lines 16-22, Fig. 3A).

Regarding claim 25, Noneman discloses the memory according to Claim 24, wherein entering a passive period comprises:

transmitting to the wireless communication entity a message indicating that a passive period is beginning (idle frames are transmitted to indicate inactivity period/idle period is beginning, elements D and E, Fig. 4).

Regarding claim 26, Noneman discloses the memory according to Claim 25, wherein the message includes at least one indication selected from the group consisting of: an indication not to release the connection and an indication that there are currently no more packets to transmit (idle frames indicate that no packet data is available for transmission, element D, Fig. 4).

Regarding claim 29, Noneman discloses the memory according to Claim 24, wherein initiating a further active data transfer period comprises transmitting further data packets on said connection (transmission at intermediate rate comprises transmitting further data packets on the service connection, Fig. 3C).

Regarding claim 31, Noneman discloses a wireless communication device comprising: at least one processor; and a memory to store machine-readable instructions that, when executed by the processor, cause the processor to implement a method of packet radio communications with a wireless communication entity to support a data flow, wherein the data flow contains at least one active data transfer period, the method comprising:

transferring data packets during an active data transfer period (data packets are transmitted at peak rate during the packet transmission period 300, col. 5, lines 15-46, Fig. 3C);

entering a passive period during which data packets are not transferred (entering an idle time period 310 during which no data packets are transmitted, col. 5, lines 15-46, Fig. 3C);

if more data becomes available prior to the expiration of a predetermined time period (if more data becomes available for transmission prior to the terminate time expires),

initiating a further active data transfer period (data packets are transmitted at intermediate rate during time period 330, Fig. 3C); and

if more data does not become available prior to the expiration of the predetermined time period, breaking said connection (if packet transmission does not resume before the terminate timer expires, packet service connection is disconnected, col. 5, lines 16-22, Fig. 3A).

Regarding claim 32, Noneman discloses the wireless communication device according to Claim 31, further comprising:

a transmitter to be coupled to said at least one processor (transmitter 14 is coupled to controller 18, Fig. 1).

Regarding claim 33, Noneman discloses the wireless communication device according to Claim 32, further comprising:

an antenna to be coupled to an output of said transmitter (antenna 12 is coupled to output of transmitter 14, Fig. 1).

Regarding claim 34, Noneman discloses a method of packet radio communications with a wireless communication entity to support a data flow, wherein the data flow contains at least one active data transfer period, the method comprising:

transferring data packets during an active data transfer period (data packets are transmitted at peak rate during the packet transmission period 300, col. 5, lines 15-46, Fig. 3C);

entering a passive period during which data packets are not transferred (entering an idle time period 310 during which no data packets are transmitted, col. 5, lines 15-46, Fig. 3C);

if more data becomes available prior to the expiration of a predetermined time period (if more data becomes available for transmission prior to the terminate time expires), initiating a further active data transfer period (data packets are transmitted at intermediate rate during time period 330, Fig. 3C); and

if more data does not become available prior to the expiration of the predetermined time period, breaking said connection (if packet transmission does not resume before the terminate timer expires, packet service connection is disconnected, col. 5, lines 16-22, Fig. 3A).

Regarding claim 35, Noneman discloses the method according to Claim 34, wherein entering a passive period comprises:

transmitting to the wireless communication entity a message indicating that a passive period is beginning (idle frames are transmitted to indicate inactivity period/idle period is

beginning, elements D and E, Fig. 4).

Regarding claim 36, Noneman discloses the method according to Claim 35, wherein the message includes at least one indication selected from the group consisting of: an indication not to release the connection and an indication that there are currently no more packets to transmit (idle frames indicate that no packet data is available for transmission, element D, Fig. 4).

Regarding claim 39, Noneman discloses the method according to Claim 34, wherein initiating a further active data transfer period comprises transmitting further data packets on said connection (transmission at intermediate rate comprises transmitting further data packets on the service connection, Fig. 3C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 27-28, 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman in view of Koenck et al. (US Publication 2007/0001007).

In claims 27, 28, Noneman discloses all the aspects of claim 24, except fails to explicitly show the memory according to Claim 24, the method further comprising: if there is no more data to transmit and the communication is complete, sending a message to the wireless

communication entity to indicate that communication is complete, and the message comprises an indication that the connection should be released.

However, Koenck discloses a portable data terminal that transmits a data frame which indicates that data transmission is complete and the connection should be disconnected when the terminal is ready to go to sleep mode (paragraphs 0165, 0180).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communications system and method of Noneman with the teaching of Koenck in having a portable data terminal that transmits a data frame which indicates that data transmission is complete such that the communication system and method of Noneman will further comprise if there is no more data to transmit and the communication is complete, sending a message to the wireless communication entity to indicate that communication is complete.

The motivation to do so is allow other mobile terminals to attempt to access the channel when the data transmission of one of the mobile terminals is complete.

In claims 37, 38, Noneman discloses all the aspects of claim 34 above, except fails to explicitly show the method according to Claim 34, further comprising: if there is no more data to transmit and the communication is complete, sending a message to the wireless communication entity to indicate that communication is complete, and the message comprises an indication that the connection should be released.

However, Koenck discloses a portable data terminal that transmits a data frame which indicates that data transmission is complete and the connection should be disconnected when the terminal is ready to go to sleep mode (paragraphs 0165, 0180).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communications system and method of Noneman with the teaching of Koenck in having a portable data terminal that transmits a data frame which indicates that data transmission is complete such that the communication system and method of Noneman will further comprise if there is no more data to transmit and the communication is complete, sending a message to the wireless communication entity to indicate that communication is complete.

The motivation to do so is allow other mobile terminals to attempt to access the channel when the data transmission of one of the mobile terminals is complete.

7. Claims 30, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman in view of Moore et al. (USP 4,251,865).

In claim 30, Noneman discloses all the aspects of claim 29 above, except fails to explicitly show the memory according to Claim 29, the method further comprising:

receiving at least one polling message from the wireless communication entity during a passive period; and

responding to a polling message to indicate an end of the passive period.

However, Moore teaches that portable units will receive polling message during a period in which they are inactive and will respond to the polling message to indicate whether there is data to send (col. 5, lines 13-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communications system and method of Noneman with the teaching of Moore in showing portable units will receive polling message during a period in which they are inactive and will respond to the polling message such that the communication system and method of Noneman will further comprise receiving at least one polling message from the wireless communication entity during a passive period; and responding to a polling message to indicate an end of the passive period.

The motivation to do so is to poll the mobile terminal to see if the mobile terminal has more data remained to be sent.

In claim 40, Noneman discloses all the aspects of claim 39 above, except fails to explicitly show the memory according to Claim 39, the method further comprising:

receiving at least one polling message from the wireless communication entity during a passive period; and

responding to a polling message to indicate an end of the passive period.

However, Moore teaches that portable units will receive polling message during a period in which they are inactive and will respond to the polling message to indicate whether there is data to send (col. 5, lines 13-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless communications system and method of Noneman with the teaching of Moore in showing portable units will receive polling message during a period in which they are inactive and will respond to the polling message such that the communication system and method of Noneman will further comprise receiving at least one polling message from the wireless communication entity during a passive period; and responding to a polling message to indicate an end of the passive period.

The motivation to do so is to poll the mobile terminal to see if the mobile terminal has more data remained to be sent.

Response to Arguments

8. Applicant's arguments filed on 9/24/2007 have been fully considered but they are not persuasive.

Applicant argued on page 2, paragraphs 1 and 2 of the Remarks that the Noneman reference fails to teach or suggest “during a passive period, during which packets are not transferred from one of the radio resource entities to the other radio resource entities over the connection,” as recited in claims 20-21, examiner respectfully disagrees. For the Noneman reference, examiner takes the position that during the idle frame period (passive period), no data is transmitted between two radio resource entities over the connection (no data packets are transmitted), only idle frames are transmitted and idle frames contain no data, Fig. 3A). Therefore, Noneman still teaches “during a passive period, during which packets are not transferred from one of the radio resource entities to the other radio resource entities over the connection.”

In light of the foregoing reason, claims 20-21 stand rejected under 35 U.S.C. 102(e) as being anticipated by Noneman et al. (USP 5,708,656).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KM


CHI PHAM
SUPERVISORY PATENT EXAMINER

12/18/07